

## C L A I M S

1. A communication quality management method  
2 of multicasting data from a distribution server to a  
3 plurality of reception terminals via a router connected  
4 to a network, characterized by comprising the steps of:  
5 adding quality information to a multicast  
6 packet distributed from the distribution server;  
7 acquiring the quality information from the  
8 multicast packet distributed via the router; and  
9 distributing, to the reception terminal, the  
10 multicast packet from which the quality information is  
11 removed.

2. A communication quality management method  
2 according to claim 1, characterized by further  
3 comprising the step of adding the quality information as  
4 a quality information header in an IP header, UDP  
5 header, and stream data of a packet from the  
6 distribution server.

3. A communication quality management method  
2 according to claim 1, characterized by further  
3 comprising the step of adding the quality information  
4 before a packet from the distribution server as an IP  
5 header, UDP header, and quality information header.

4. A communication quality management method  
2 according to claim 1, characterized by further  
3 comprising the step of containing packet loss  
4 information, distribution delay information, and

5 fluctuation information in the quality information.

2 5. A communication quality management method  
3 according to claim 1, characterized by further  
4 comprising the step of saving, as database for each  
5 reception terminal, quality information acquired from  
6 the multicast packet.

2 6. A communication quality management  
3 apparatus for multicasting data from a distribution  
4 server to a plurality of reception terminals via a  
5 router connected to a network, characterized by  
6 comprising:

7 a server proxy arranged between the  
8 distribution server and the router to add quality  
9 information to a multicast packet;

10 a reception terminal proxy arranged between  
11 the router and the reception terminal and including a  
12 quality information acquisition unit which acquires,  
13 from the multicast packet, the quality information added  
14 by said server proxy and a quality information  
15 calculation/transmission unit, said reception terminal  
16 proxy distributing, to the reception terminal, the  
17 multicast packet from which the quality information is  
18 removed; and

19 an accumulation server which receives and  
20 accumulates the quality information from said reception  
terminal proxy.

7. A communication quality management

2 apparatus according to claim 6, characterized in that a  
3 quality information database storing, for each reception  
4 terminal, quality information acquired, calculated, and  
5 received by said accumulation server is connected to  
6 said accumulation server.

8. A communication quality management  
2 apparatus according to claim 6, characterized in that a  
3 quality management server which receives packet quality  
4 information from said accumulation server and sets QoS  
5 of the router is connected to said accumulation server.